

I claim:

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A combination latch assembly and support structure for a vehicle spare wheel carrier having an arm movable about a vertical axis, said latch assembly and support structure comprising,

- an elongate base,

- attachment means for securing the elongate base to the vehicle transversely of the vehicle center line, and

- said latch assembly carried by the arm and said base and including a ball member and a housing having a partially hemispherically shaped end for reception of the ball member when the arm is in a stowed position parallel to said base during vehicle travel and a lock for retention of the ball member in said housing.

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In a vehicle spare wheel carrier having an arm supporting a spare wheel for travel about an axis during removal and installation of the spare wheel on the carrier, the improvement comprising,

a base for attachment to the vehicle,

a ball member on said base,

a latch assembly including a housing having a partially hemispherically shaped end for reception of the ball member and a lock for retention of the ball member in said housing securing the arm supporting the spare wheel against movement about said axis.

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10 The improvement claimed in claim 2 wherein said end of the housing has a
curved wall segment formed about a single axis.

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2 The improvement claimed in claim 2 additionally including a lock moveable
mounted in said housing, a handle coupled to said lock for displacement of the lock into
abutment with the ball member to secure the arm to said base.

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2 The improvement claimed in claim 4 additionally including a safety latch on said
handle and engageable with the housing to prevent handle movement relative the
housing.

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2 In a spare wheel carrier on a vehicle and having an arm positionable about a
vertical axis, the improvement comprising,
an elongate base,
4 attachment means for securing the base to the vehicle,
a latch assembly for retention of the arm including a ball member, a housing
6 engageable with the ball member and having a partially hemispherical end for abutment
with the ball member and a lock confining the ball member in such abutment.

The improvement claimed in claim 6 wherein said partially hemispherical end of
2 the housing merges with a curved wall segment of the housing, said ball member and said
curved wall segment formed on like radii permitting seating of the ball member in said
4 curved wall segment of the housing without momentary displacement of the housing.